

Please replace the section beginning at page 1, line 1, through page 1, line 8, with the following section.

**PHOTOSENSOR ARRAY USING SEGMENTED CHARGE TRANSFER GATES TO
IMPROVE PROCESSING TIME FOR SMALL IMAGES**

FIELD OF INVENTION

~~This invention relates generally to photosensor arrays used for optical image scanners and cameras, and more specifically to line arrays commonly used for optical image scanners.~~

Please delete the section beginning at page 3, line 1, through page 3, line 15, as follows:

SUMMARY OF THE INVENTION

~~A photosensor assembly has charge transfer gates that are segmented into multiple sections. Individual sections can be controlled. For a small image, only the appropriate sections of the charge transfer gates are used to transfer charges from the photosensors to charge shift registers. The charge shift registers shift the charges toward a node for analog to digital conversion. When all the charges have been shifted beyond the appropriate sections of the charge transfer gates, the appropriate sections of the charge transfer gates can be activated again. As a result, multiple partial scanlines may be multiplexed onto the charge shift register. In the steady state, only the charges from a small section of the image are converted, thereby reducing processing time. If overall scanning time is limited by exposure time, then the shift rate can be decreased as a result of shifting fewer charges, thereby improving charge transfer efficiency. Accumulated charges in photosensors that are not being used are drained into overflow drains.~~